EXCISION

OF

A PORTION OF LIVER FOR TUMOUR

BY

MAYO ROBSON, F.R.C.S.Eng.

SENIOR SURGEON TO THE GENERAL INFIRMARY, LEEDS, AND PROFESSOR OF SURGERY IN THE YORKSHIRE COLLEGE OF THE VICTORIA UNIVERSITY

[*From Volume 79 of the 'Medico-Chirurgical Transactions'*]

LONDON

PUBLISHED BY THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY OF LONDON,

AND SOLD BY H. K. LEWIS, 136, GOWER STREET, W.C.

1896

ADLARD AND SON, PRINTERS] [BARTHOLOMEW CLOSE, E.C.

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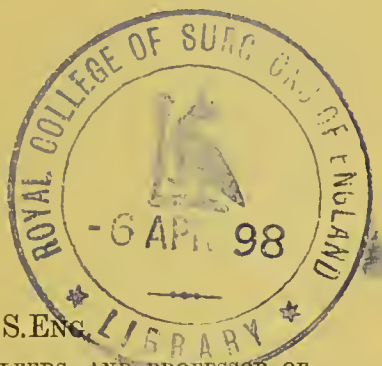

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Received January 10th—Read March 10th, 1896

At first sight it would almost seem impossible either that excision of a considerable portion of the liver could be accomplished, or that if done it could have any practical utility. I think, however, it will be granted that the record of the following case proves the operation to be both feasible and useful, even in cancer. The notes of the case are :

Mrs. W—, æt. 54, the wife of a publican, was sent to me by her medical attendant, Dr. J. G. O'Connell, of Keighley, on account of a tumour in the right of the abdomen which was accompanied by acute and distressing symptoms. The patient, a spare woman, was slightly jaundiced, and looked pinched and extremely ill when I saw her on November 21st, 1895. She gave me the history of having noticed a moveable swelling on the right side of the abdomen for twelve years, which was diagnosed as a floating kidney, and which she was in-

formed needed no treatment. As it produced no symptoms and did not interfere in any way with her duties, for several years she ignored it, and sought no advice until three years ago, when she began to have occasional attacks of pain over the liver, followed by vomiting and slight yellowness of the skin, though she said that this never amounted to true jaundice. Her health began to fail, and she began to lose flesh four months ago, but the tumour did not appear to alter materially until six weeks before I saw her, when, whilst in the act of stooping to pick up a bottle, she was suddenly seized with an acute pain in the tumour, which straightway began to increase and to be painful and tender. From this time her illness had been continuous, and she had been confined to bed or the couch.

When she saw me, the right lobe of the liver reached to the level of the umbilicus, and from its lower border a firm rounded tumour passed down as far as the right groin. The tumour was dull on percussion, and did not fluctuate, though a thrill on succussion showed the contents to be fluid or semi-fluid. The left lobe of the liver was not enlarged materially, and no nodules could be felt. A diagnosis of enlarged gall-bladder due to impaction of gall-stones in the cystic duct was made, and the presence of secondary malignant disease was suspected.

Operation was advised, and the patient was admitted to a surgical home, the following operation being performed November 23rd. The abdomen was opened by an incision in the right linea semilunaris, when the gall-bladder was found to be adherent to the parietal peritoneum, as well as to the liver, stomach, omentum, colon, and small intestines.

Aspiration removed about two ounces of muddy-looking fluid, but the greater part of the contents of the gall-bladder was of putty-like consistence, and had to be removed by a lithotomy scoop after incision of the sac. One gall-stone, the size of a cherry, came from the interior of the gall-bladder, the walls of which were thickened

and infiltrated. The adherent omentum was ligatured off and other adhesions were separated, when it was found that the entrance to the cystic duct was almost occluded by a growth the size of a walnut, and beyond this could be felt a rounded gall-stone the size and shape of a thrush's egg. In consequence of this discovery, I decided to perform cholecystectomy, and proceeded to detach the gall-bladder from the liver, when I discovered a whitish nodule on the under surface of the right lobe of the liver, clearly an extension from the growth in the cystic duct.

It now became manifest that it would be useless to remove the one without the other; I therefore at once decided to attempt the removal of the affected portion of the liver, and to this end I had two knitting-needles boiled, and selected a piece of non-fenestrated drainage tube to act as a tourniquet.

I prolonged the incision quite up to the costal margin, had the right lobe of the liver and remains of the gall-bladder dragged forward through the wound, and encircled the protruding part with the rubber tube, which after encircling it twice was tied and the ends cut off. The tourniquet passed beneath the gall-stone, and therefore well beyond the growth in the cystic duct as well as the nodule in the liver. In order to prevent the improvised tourniquet from slipping, I pushed the knitting-needles through the liver and cystic duct transversely just above the elastic, leaving the ends resting on the skin on either side of the stump. There was then no difficulty in tucking down the parietal peritoneum and suturing it to the visceral peritoneum on the under surface of the liver and duct below the level of the tube. Sponge pressure, aided by a few catgut ligatures, soon arrested the bleeding from the torn adhesions, and after wiping out the abdomen the wound was closed layer by layer, leaving the disease external at the upper part of the incision.

The projecting lobe of liver, together with the remains of the gall-bladder and cystic duct, were then cut away half an inch above the needles, there being absolutely no

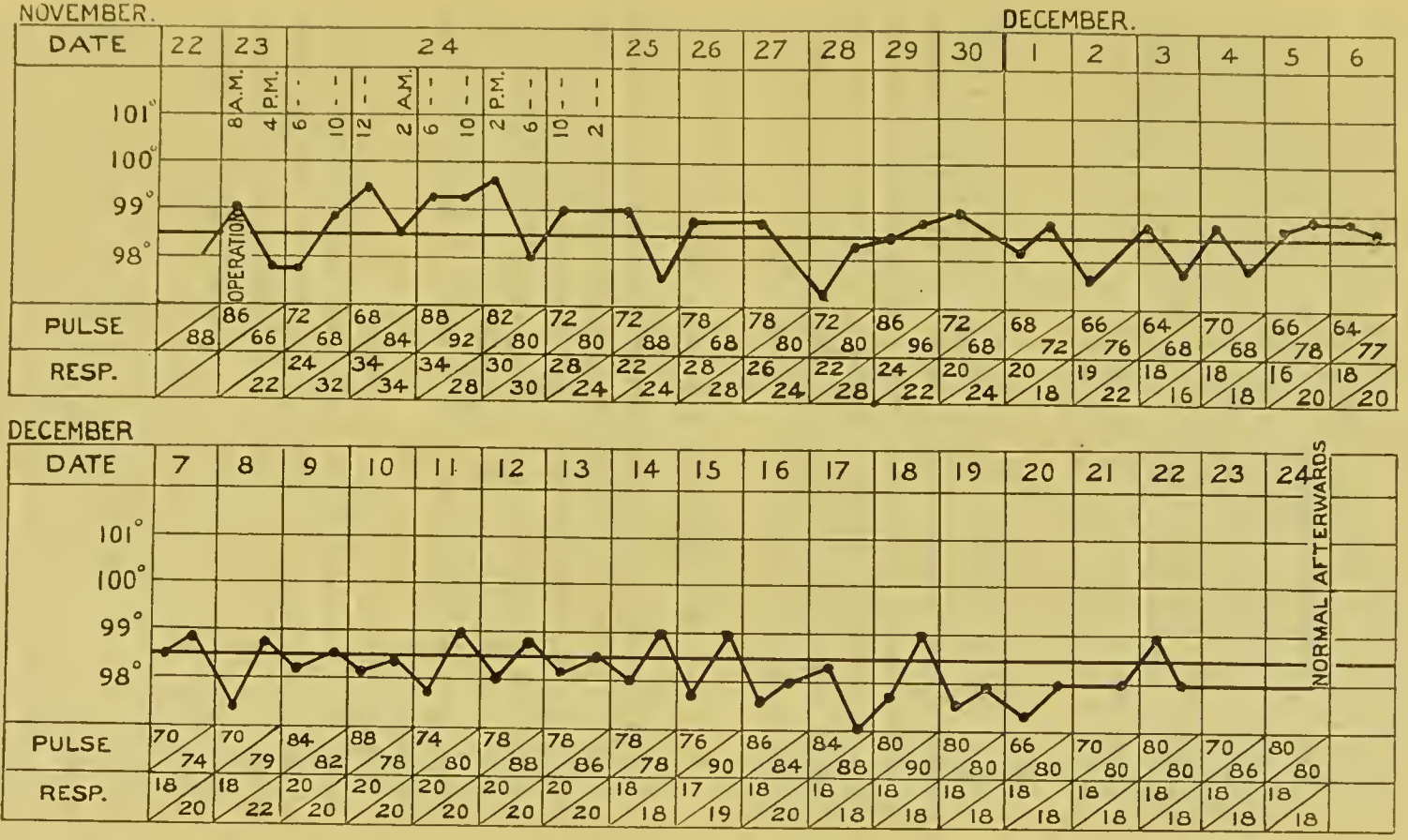
bleeding and apparently very little tension. The stump was dusted with boracic powder, and was dressed daily in order to keep it as dry as possible.

The wound beyond the stump healed by first intention, and the stitches were removed at the week end. The first needle came away at the end of a fortnight, the second a week later, and the stump beyond the ligature, together with the ligature itself, was removed within the month. After the separation of the slough, the granulations exuded a little bile for about ten days. The patient was on the sofa at the month end, and returned home six weeks after operation looking and expressing herself as quite well. She had lost her anxious look and had gained flesh. Her appetite was good, and her digestion seemed perfect.

The original and unaltered temperature chart appended shows that the recovery was absolutely uneventful: the pulse never exceeded 90; the temperature was never below 98° or above 99·2°, and the patient did not vomit even once,—in fact recovery was as smooth as after an ordinary ovariotomy. There was absolutely no shock.

The operation, in which I was assisted by Mr. Towers, occupied about an hour and a quarter, and the patient took the C. and E. mixture most comfortably, it being administered by Dr. McGregor Young.

Remarks.—Although hepatectomy for a pedunculated lobe, or for a well-defined and separable tumour, is known to be within the range of modern surgery, until the present case I scarcely thought it probable that hepatectomy for cancer would come within the scope of practical operations. When, however, I found that the remainder of the liver was free from disease, I felt that I ought to give the patient the chance of cure by attempting the removal of the disease, although the precedent was wanting; and in this Dr. O'Connell, who was present, fully agreed. With regard to the method employed, it was so simple and proved so effectual, that although thought out on the spur of the moment, additional consideration has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not led me to think it necessary to advise a modification of the procedure for any similar case in the future.

The tumour after removal weighed half a pound, after the moisture had drained away, and this did not include either the pultaceous material removed from the gall-bladder or the walls of the gall-bladder, except that portion attached to the liver itself. Mr. J. H. Haigh reports the growth to be epithelioma. For the microscopic characters of the new growth *vide* Plate III.

This case, along with many others that have come under my observation, amply demonstrates the causative relationship of cancer to gall-stones, and I think it teaches us the lesson that simple enlargement of the gall-bladder, even unaccompanied by symptoms, ought not to be left without operation, which, with proper precautions and in skilled hands, is almost devoid of danger.

Addendum, March 10th, 1896.

I had the opportunity of seeing the patient ten days ago, and of carefully examining the region of operation; so far as I could say there was no sign of recurrence of disease, the patient being of a good colour, and the remains of the liver, so far as could be ascertained by palpation and percussion, remaining normal in size and being free from tenderness.

I was asked to see her on account of a small swelling, situated in the abdominal wall, just above the inner end of the right Poupart's ligament, which was thought to be increasing in size, and which was causing uneasiness from the fear that it might be a secondary growth, though situated so far from the original site of the disease. I thought it better to remove it, and on incision I found the tumour to consist of an encapsuled swelling in the abdominal wall, between the skin and the aponeurosis of the external oblique, resembling a sebaceous cyst, in that the cyst wall was quite distinct and the contents were

of putty-like consistence. Under the circumstances I removed the tissues immediately surrounding the capsule as well as the tumour itself. The wound healed by first intention, and the patient was up on the third day.

Mr. Stott, pathological curator at the infirmary, informs me, after having examined the parts removed, that he can find no sign of morbid growth, and that in structure it resembles a sebaceous cyst.

DESCRIPTION OF PLATE III.

Excision of a Portion of Liver for Tumour (MAYO ROBSON).

FIG. 1.—(Reduced $\frac{1}{3}$.) G.B.O. Outer surface of gall-bladder; near × the growth is infiltrating the wall, shown in shaded portion. B.W. Thickened and infiltrated wall of gall-bladder, laid open. L. Liver. L.S. Liver laid open to show—N, Secondary malignant nodule in liver; D, Cystic duct.

FIG. 2.—Microscopic section of the new growth. (Hartnack Obj. No. 4, oc. 3 = × 120. Drawn by J. W. Haig.) 1, 1, 1. Connective tissue of alveolar walls. 2. Connective-tissue nuclei. 3. Epithelial cells, somewhat squamous in appearance. 4, 4. Nuclei of ditto. 5. Smaller rapidly growing cells of basement layer. 6, 6. Degenerated epithelial cells in which the nuclei have disappeared.

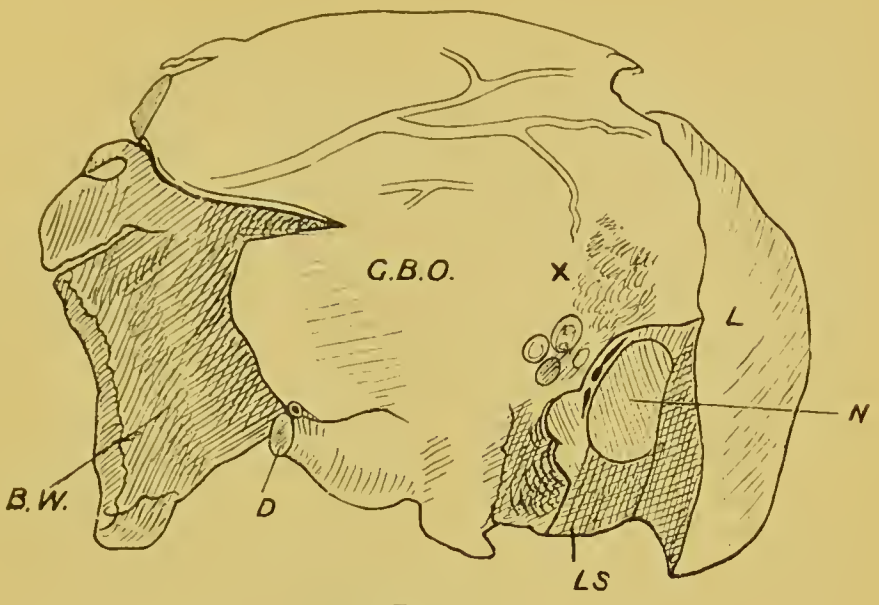

FIG. 1.

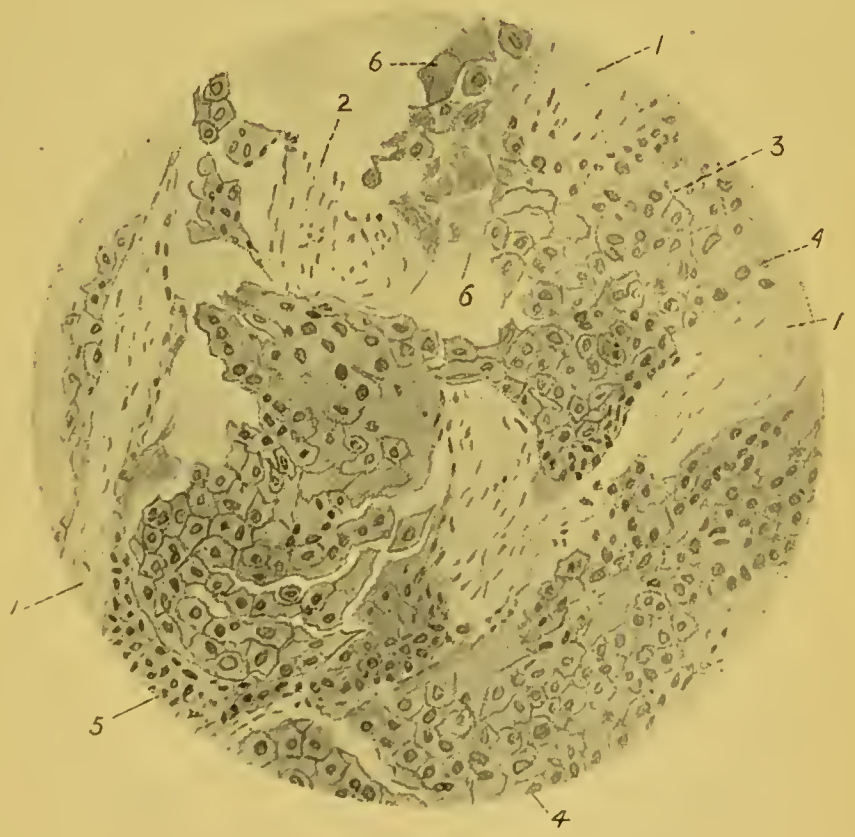

FIG. 2.

Imp. Adlard and Son.